

## REMARKS

The Applicant gratefully acknowledges the reconsideration of the application as remarked by the Examiner in his Office Action of February 13, 2006. To keep the Examiner apprised of related applications, in an Office Action filed March 1, 2006 for companion case application serial number 10/790,477, some claims directed to a method of producing the claimed product were allowed and others were rejected.

In the Office Action filed February 13, 2006 directed to this application, the Examiner acknowledged that the arguments distinguishing Applicant's invention in his Pre-Appeal Brief from the prior art references of U.S. Patent No. 6,295,776 to Kunz (hereinafter, "Kunz '776") and U.S. Patent No. 5,131,198 to Ritchie et al. (hereinafter, "Ritchie") in view of U.S. Patent No. 2,853,871 to Compton (hereinafter, "Compton") and U.S. Patent No. RE34,547 to Weldy (hereinafter, "Weldy") were persuasive.

The Examiner now cites a new reference, U.S. Patent No. 1,426,872 to Hummert (hereinafter, "Hummert") as a basis under 35 USC 103 in conjunction with Kunz and Weldy to reject independent Claims 15, 16, 41, 52. The Office Action states that Kunz shows a drywall trim device comprising a relatively rigid elongated core having a curved transverse cross section so as to have a convex outer surface and a concave inner surface, a pair of flanges terminating in respective longitudinal edges to form flexible flaps having outward and inward surfaces, the flaps formed with spaced apart perforations on the outward surfaces. The Office Action concedes however, that Kunz does not show the flap having elongated grooves and ridges with at least the inward surfaces including the ridges for anchoring the joint compound on the drywall corner joint with at least the outward surfaces including the grooves, the perforations being in the grooves of the outward surfaces as claimed in Applicant's independent claims 15, 16, 41, and 52. The Office Action relies on Weldy in effort to show flaps having grooves and ridges and perforations for assisting with the anchoring of the device into the corner joint. The

Office Action then relies on Hummert to show a paper cover having inner and outer grooves and ridges, perforations being in the grooves of the outward surfaces enabling the easy and secure fastening of the cover to an underlying substrate. However, the interpretation of these references and rationale to combine these references is inaccurate, misleading, and even if combined, would not lead to Applicant's results.

### Applicant's Invention

Applicant's invention utilizes a two-piece construction utilizing a tape-on scheme for attachment to a dry wall surface. First, there is a core to provide a body having some degree of rigidity. Such a core is typically metal or plastic. Then the core is covered with paper that projects laterally to at least one side of the core so as to form a flexible flap or flaps. The flaps are configured on at least their inner surfaces facing the drywall with ridges and grooves to embed in uncured joint compound to, when cured, be firmly anchored in place to thus avoid dislodgement during the further finishing and painting process. This then provides reliable anchoring while eliminating the time consuming task of nailing and the expensive process of replacement when tape-on anchoring is inadequate as would often be the case with planar flap construction as taught by Kunz. In the preferred embodiment, the flaps are formed along their length with ridges formed by the inward depressed grooves spaced apart about 1/8 of an inch and with the ribs being about 1/64 of an inch high. Perforations are formed through the inward facing depressions permitting joint compound applied to the drywall surface to flow through the perforations forming columns exhibiting shear strength and forcefully resist lateral displacement of the flaps.

### Kunz

Kunz '766 is directed to a conventional tape on bead with flat planar paper wings to be laid flat over the marginal surface of a drywall panel (Fig. 1). According to Kunz,

this corner bead structure avoids the cracking that develops in nail-on beads and tolerates dimensional changes in the underlying framing of drywall construction where rigid nail-on beads do not adapt well (Col. 1, lines 55-67).

### Weldy

Weldy proposes a nail-on type wallboard corner joint for use in the intersection of two or three drywall edges such as where there are inside or outside corners. Weldy extrudes a single piece of plastic forming striations on his flanges which will face outwardly when secured over an inner or outer wall intersection (Col. 3, lines 34-37). The striations are "much like record grooves", (Col. 3, line 38) to provide a gripping surface for mud to stick to the outside surface facing the room. Without the striations, the mud would just fall off the exposed surface of the joint (Col. 3, lines 32-47). Alternatively, Weldy proposes adding holes 26 to the legs for mud too "ooze" through (Col. 3, line 56). The holes are not intended for nailing (Col. 3, lines 49-55). The joint body itself is soft enough to allow nails to be hammered through and the nail heads covered by the mud which will be sanded down for aesthetics (Col. 3, lines 19-32).

### Hummert

Hummert teaches a means for covering wooden walls that is a foundation for the subsequent application of wall papers (Col. 1, lines 11-34). Hummert covers the flat area surfaces of wood with corrugated paper. He coats the wooden wall with glue and then places the corrugated paper onto the glued surface to hold the paper in place while tacks are then punched through the paper and wall to secure the paper in place (Col. 2, lines 68-80). Hummert then lays ornamental wallpaper over the corrugated foundation.

### Rejections based on the reference to Kunz

The Office Action does not specify whether the striations or the flaps of Weldy are to be added to the flaps or flanges of Kunz or the motivation for either. In any event, Weldy is inappropriate to combine with Kunz because there is no suggestion motivating one to use Weldy's nail-on type corner joint to solve the problems described by Kunz' tape-on type corner bead. Weldy's integral corner joint teaches plastic legs or flanges with striations on their exterior surface and promotes the advantages of a one-piece extruded design at a corner fitting. Kunz teaches away from using the one-piece construction of Weldy. Kunz has a paper exterior surface to which mud or paint might adhere. Without Applicant's teachings, there is no reason to add striations to either the flanges or flaps of Kunz. Unlike Weldy, Kunz uses a tape-on design to avoid the inflexibility of single piece joints that are difficult to adapt in the underlying construction framing (Col. 1, lines 61-67).

Similarly, one looking to solve one of Weldy's problems would look away from using a corner bead of Kunz' construction. This is evident where Weldy teaches away from using a metal core and paper flap construction. Where Kunz is a two-piece tape-on drywall corner bead, the corner joint in Weldy is a nail-on type corner bead extruded into a one-piece construction entirely of plastic to overcome alleged deficiencies in metal core corner beads that may rust and be more expensive. Weldy explicitly states that metal strips for corner bead finishes are an inferior and undesirable option in Column 1, lines 22-54. For example, Weldy states, "[a]nother drawback of the metallic strips is inherent in the fact that the malleable metal from which they are made has a very poor memory and is subject to being dented or wrinkled, after which it is difficult to straighten to produce a smooth finish. Because of the rough handling to which most of the material at a work site is subjected to, it is not uncommon for the strips to be wrinkled, dented and

perhaps twisted, thus rendering them ... unusable..." (Col. 1, lines 36-44). Thus, Weldy and Kunz expressly teach away from each other.

Additionally, where the Office Action relies on Hummert to show a paper cover having inner and outer ridges and grooves, perforations being in the grooves of the inward surfaces, there is no suggestion for one skilled in the art to look to Hummert to provide the limitations of ridges on the interior of the Kunz flaps to embed in joint mud. Hummert's wall covering relates neither to drywall nor to corner beads joints that use a mud or joint compound. The covering taught by Hummert is not for use in the corners or terminus of drywall boards but more for the face of planar wood surfaces prone to absorption of moisture and consequent warping. Hummert applies glue to a wood surface and then mounts a corrugated paper while the glue is still wet and, thereafter, nails the paper to the wall. Nowhere does he or Kunz size, position, or arrange corrugations on the inner surface of flaps to be imbedded in compound as the sole anchoring means to hang the bead from a flat drywall surface.

Hence, any suggestions or motivations to combine these references comes from Applicant's disclosure and not from the prior art. To modify as proposed by the Office Action would be to defeat the planar paper flap surface of Kunz, enlarge the striation of Weldy creating exposed surface irregularities and eliminate the glue adhesion of Hummert. Modifying references where it would defeat their suggested use is not permitted.

Furthermore, the Office Action's interpretation of Kunz, Weldy, and Hummert is erroneous in the structural combination of the limitations. The combination of the three references does not result in a structure equivalent to Applicant's corner bead as claimed in Independent Claims 15, 16, 41 or 52.

Modifying Weldy to combine with Kunz will not result in Applicant's corner bead structure because Weldy's striations are not the same as Applicant's depressions and ridges. Weldy's striations are formed on the outward surface of the legs and are "much like record grooves", (Col. 3, line 38). Modifying the striations of Weldy so that their size and amplitude are increased to a size to create depressions, ridges, and spacing sufficient to anchor to the joint compound, rather than to just afford a functional surface for receipt of compound would defeat his objectives to provide a gripping surface for the mud and provide an inconspicuous profile after finishing. Increasing the striation width and spacing would provide less tractional surface and would appear more irregular as the ridges would be more pronounced under the primer finish. Also, Weldy teaches designing the legs with a smooth inward surface and holes on the joint surface for permitting mud to grip the joint surface through the hole. This is not the same as Applicant's holes and ridges inward facing surface that permit joint compound applied to the drywall surface to communicate outwardly and form columns through the holes providing more attachment surface to the drywall surface instead of to the paper strip outward facing surface.

There is no suggestion to modify Hummert. Hummert provides a paper covering for flat wooden wall structures and is not used to join the corners or termini of drywall. Applicant's paper cover strip provides perforations in the grooves of the outward facing surfaces for effective attachment by allowing the joint compound applied to the drywall surface to travel through the perforations and form posts or columns that reach the cover strip outward facing surface. Hummert's covering lacks perforations for permitting any such communication of adhesive. While Figure 2 shows a tack puncturing an inward facing ridge, such a structure defeats the purpose of the perforation. The opening is only present after the tack punctures the paper and Hummert shows the tack remaining in place after puncture. Such an arrangement plugs up the hole and obstructs the passage of any adhesive present on the wall. Furthermore, the ridges and grooves are only

accessible on the inward facing surface since a flat backing covers what would be the outward facing surface of the covering.

The structural combination of these features would result in a corner bead with paper flaps that have thin striations on its outward facing surface, ridges on its inward facing surface, and either plugged up holes as seen in Hummert or holes with no attachment of adhesion from the drywall surface to the outer facing surface of the flaps.

The rejection to independent Claim 30 also relies on Kunz, Weldy, and Hummert and for the same reasons as detailed above in arguments for claims 15, 16, 41 and 52 are inappropriate references. Claim 30 includes flaps with outward and inward facing surfaces and the grooves space an  $1/8^{\text{th}}$  inch apart, the ridges a  $1/64^{\text{th}}$  inch height from their bottoms and the perforations spaced equidistantly apart for communication of the uncured joint compound between the inward and outward surfaces. The Office Action claims the combination of grooves and perforations as taught by Weldy and Hummert would achieve an enhanced attachment of the joining compound, (O.A. pg. 3, lines 7-15). However, as discussed previously, Weldy's record type striations are intended to avoid excessive surface undulations and to widen them would defeat their purpose of providing a gripping surface for mud but to avoid especially the end aesthetics. Hummert does not discuss the spacing between his grooves. Furthermore, combining the structures of Weldy and Hummert do not result in perforations accessing the drywall surface because the corrugated paper in Hummert includes a flat paper backing obstructing access to the drywall surface and a tack that obstructs access to the outward facing surface. None of the prior art teaches perforating a combination of grooves, ridges, and a paper backing. Therefore, none of these references teach or suggest a structure similar to Applicant's.

Claim 42 is dependent on independent Claim 41 including all the limitations therein but adds the limitation that the ridges are of uniform height.

Claim 43 is also dependent on Claim 41 but adds the further limitation of spacing the ridges equidistant apart.

Claim 44 is dependent on Claim 41 and adds the further limitation that the ridges be continuous in the longitudinal direction of the flap. Hummert fails to show if the ridges travel continuously longitudinal along the flap.

Claim 45 is dependent on Claim 41 further limiting the flaps by adding ridges extending the full length thereof on the flap's outwardly facing surface with a plurality of grooves aligned with the ridges with the grooves formed with through openings in their bottoms for compound to be applied to the grooves through the openings. As argued, Hummert fails to include openings formed in its grooves as part of its structure and further does not permit compound to travel through his openings for attachment to the wall surface.

Claim 53 is dependent on Claim 52 but includes the further limitation of a plurality of perforations along the length of the flaps and filled with joint compound to form compound posts which cooperate with the compound ridges to mechanically resist displacement of the core. No where in the prior art does it suggest any such limitations. Weldy does not show or suggest his holes to allow the mud to form posts.

Claim 54 is dependent on Claim 53 further including flaps formed with perforations disposed in longitudinal rows and are further formed on their respective outer sides with grooves aligned with the respective rows of perforations to cooperate in, during application of the joint compound, funneling the compound to respective perforations. Hummert does not teach or suggest directing joint compound through perforations. Weldy does not teach or suggest perforations in the grooves but instead shows perforations overlapping multiple grooves hence, Weldy's grooves are unable to funnel the joint compound where desired.



Claim 55 is dependent on Claim 52 adding the further limitation of ridges and grooves being continuous throughout the length of the flap. Hummert does not show the ridges traveling continuously longitudinal throughout the length of the flap.

New Claim 56 recites a flexible core with attached flexible planar paper flaps deformed to a diminished area to form depressions with ridges on the inward facing surface of the flaps. An additional benefit of this knurled construction is that, when so deformed, the paper flap in addition to being shortened in its lateral direction is shortened slightly along its length causing it to draw the relatively flexible core laterally in one direction at the opposite ends thereof toward what will be the drywall panel to thus form a very slight bowed curvature. This bowed curvature is helpful in facilitating attachment of a drywall corner bead to a drywall surface. For example, as in orthogonal drywall corners, the flanges of the core being bowed slightly in at the ends can merely be positioned by the workman grasping it intermediate the ends to press it bodily against the drywall itself thus tending to, as he or she presses inwardly, straighten the bead to maintain positive uniform contact with the drywall throughout the length thereof.

#### Rejections based on the reference to Ritchie

Independent Claim 16 was also rejected based on Ritchie in view of Weldy and Hummert. The Office Action admits Ritchie does not show flaps formed on their outward facing surfaces with spaced apart perforations and extending through the flaps to their inward facing surfaces to provide communication of uncured joint compound between the inward and outward facing surfaces, the flap being formed with alternating elongated grooves and ridges the perforations formed along the grooves of the outside surface of the flaps. The Office Action relies on Hummert to show inner and outer grooves and ridges with perforations and Weldy to show perforations being in the grooves of the outside surface of the flaps extending to the inward surface.

## Ritchie

Ritchie teaches using a nail-on type corner bead with a metal core and a paper layer folded around the outer edges of and bonded to the corner element. A reinforcing layer of paper is placed on the core and between the folded portions of the front paper layer.

For the same reasons as argued for Claim 15 above, combining Ritchie with Weldy and Hummert is also inappropriate to reject Claim 16. Nothing in Ritchie, Weldy, or Hummert suggest applying a nail-on design to tape-on style corner beads. Ritchie also teaches using a metal core in his corner bead using a nail-on design. Weldy expressly teaches away from using a metal core and instead proposes using an all-plastic joint to avoid combining the features of Weldy with corner beads such as Ritchie's. Furthermore, nothing in Hummert suggests using his covering in the joining of drywall corners or termini.

Structurally, Ritchie's cover strips do not contain perforations for allowing joint compound on the drywall to flow through and dry to the outward facing surface of the cover strip. Hummert's wall covering also does not include perforations in its surface for communication of joint compound but instead teaches puncturing with a nail as the means to attach the covering and plugging the hole with the nail. Weldy's holes are for keying the mud to the outward facing surface of the joint and not to the attachment of the dry wall surface.

Claim 35 is dependent on Claim 16 but adds the further limitation of a paper cover constructed of fibers mixed with a strengthening compound at the time of manufacture. No where in Weldy or Hummert does it suggest such a limitation. Ritchie only teaches a protective coating applied to the paper and does not teach mixing the fibers with a strengthening compound.

Claim 36 includes all of the limitations of Claim 35 but adds the further limitation of encapsulating the fibers with the strengthening compound. Nowhere in Weldy or Hummert does it suggest such a limitation. Ritchie only teaches a protective coating applied to the paper and does not teach using a paper that was manufactured with its paper fibers encapsulated with a strengthening compound.

Referring to method Claim 46, the Office Action combines the teachings of Ritchie with the references of Weldy and Hummert to reject the claim. As previously argued, Weldy is an improper reference since it teaches away from what is recited in Ritchie. Similar to Kunz, Ritchie utilizes a metal core which Weldy claims has inferior characteristics that Weldy proposes to overcome. Hence, one skilled in the art would not look to combine Weldy with Ritchie to arrive at the method Applicant claims.

Claim 47 is dependent on Claim 46 and adds the further limitation of adding a strengthening compound to the paper flaps. This limitation is not found in Ritchie, Weldy, or Hummert. Ritchie only teaches using paper with a protective coating.

Claim 48 is dependent on Claim 46 and adds the further limitation of perforations and outward facing grooves in the flaps. Hummert does not include perforations as discussed in independent claims 15, 16, 41, and 52 and also does not include outward facing grooves because any grooves that would be facing outward are obstructed by a flat paper layer nullifying the corrugated paper's ability to receive joint compound in those grooves.

It should also be noted that inventor Kunz did not incorporate undulations on the inner surface of his flaps until he filed his application for U.S. Patent No. 6,539,680 September 28, 2001. Applicant's filing date and commercial introduction both precede this date. Therefore, had it been obvious at the time to combine these features Kunz would have suggested it in his previous application. It is believed that the arguments

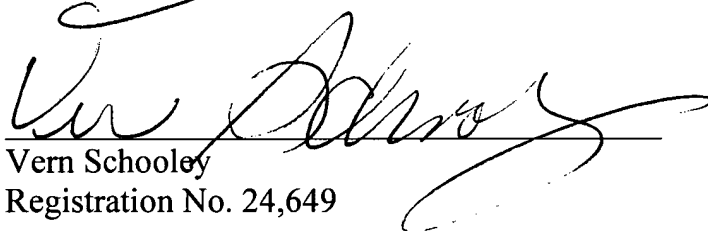
discussed distinguish Applicant's invention from the prior art and demonstrate that the claims are in condition for allowance.

In light of the above remarks, Applicant respectfully requests reconsideration of the claims and that a timely Notice of Allowance be issued in this case. Should the examiner not be in agreement, it is respectfully requested that he telephone the undersigned attorney to discuss the features of the invention to place the case in better condition for appeal.

Respectfully submitted,

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